



CAD PROJEKT K&A

Operation manual

Drawing features

CAD Kitchens 8.0, CAD Decor 4.0, CAD Decor PRO 4.0

INTRODUCTION

This manual provides information on the basic drawing functions available in CAD Kitchens, CAD Decor, and CAD Decor Pro. It explains the use of image controls, feature points, and dimensioning options.

We wish you a pleasant and fruitful work with our software!

CAD Projekt K&A team

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Basic drawing functions

1. Control of image display

1.1. Project view management

The display of the image is controlled using the icons in the **'View'** toolbar (Illustration 1) or by using the mouse and keyboard shortcuts. View options can also be found in the Menu on the top panel (Illustration 2).



Illustration 1 View toolbar

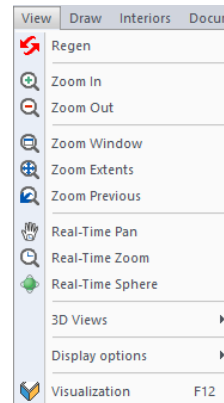




Illustration 2 View options in the top menu

1.2. Regen

The **'Refresh'** icon  allows you to clear the image of any residue, e.g. objects that have been removed. It should also be used if the active snap points are not displayed when drawing. When the icon is selected, the programme will refresh the view. This function is also available by turning the mouse roll slightly. The keyboard shortcut for refreshing the drawing is **RE >> Enter** or **Space bar**.

1.3. Zoom Extents

To make the view include all elements of the drawing, click the **"Zoom Extents"** icon . You can also type **Z [Enter] --> A [Enter]** (A for All) from the keyboard.

This is useful if the user moves away or zooms in uncontrollably and loses sight of the project.

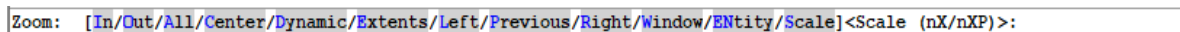





Illustration 3 Zoom options

1.4. Zoom In and Zoom Out


The degree of magnification of a drawing can be changed in four ways:

- by selecting the **"Zoom in"**  or **"Zoom out"**  icon - the program will zoom in or out to the indicated part of the image twice;
- by simultaneously pressing **[Shift + Ctrl + left mouse button]** and moving the mouse in this mode: up to zoom in, down to zoom out;
- by positioning the cursor at the point you wish to zoom in or out and then scrolling the mouse wheel away from you or towards you (up or down) - the image will zoom in or out accordingly;
- using **Z [Enter] --> I** or **O [Enter] --> O** to zoom in or out accordingly (Illustration 3).

1.5. Zoom Windows


This option allows you to zoom in on a part of the drawing by selecting the area to be enlarged. To enlarge the selected area, select the „**Zoom window**” icon , then draw a selection rectangle on the sheet by clicking once where you want the zoom area to start and a second time where you want it to end. After a second click, the selected area will be zoomed in. This function can also be activated by typing **Z+[Enter]** on the keyboard and selecting the **Window** option, or by typing the letter **W** and selecting the area to zoom in with two mouse clicks as described above.

1.6. Zoom Previous

To go back to the view in which the project was previously set, select the "**Zoom Previous**" icon  from the toolbar. Clicking on it will take the program back to the previous setting. Alternatively, you can type **Z [Enter] -- > P [Enter]** from the keyboard.

1.7. Real-Time Pan

Moving the area in which we are creating the project can be done in one of three ways:

- by selecting the "**Move**" icon  and then holding down the **left mouse button** while the cursor is in the project area and moving the mouse right/left, up/down;
- holding down **[Shift + Ctrl + right mouse button]** and maneuvering the mouse at the same time;
- pressing and holding down the **mouse roll** (the middle movable part of the mouse) and moving the mouse right/left, up/down.

1.8. 3D rotational view

To rotate the drawing in the three-dimensional plane around the axis defined by the centre of the view, you must:

- hold down the **Shift+Roll** ;
- move the mouse.

1.9. Real-Time Sphere

Allows you to rotate the view spherically. It can be invoked by selecting Rotate Spherically from the View Menu (Illustration 4) or by holding down the **Shift + Ctrl + Roll** .

2. Ways of selecting drawing elements

In order to perform an operation on the selected object(s), they must first be selected. This can be done in a number of ways, as described below. Once an object has been selected, its appearance changes - it is now displayed as a schematic outline with a dotted line, with the insertion points indicated by green squares (Illustration 5). To deselect an object, press the **[Esc]** key on the keyboard. More than one object can be selected at a time.

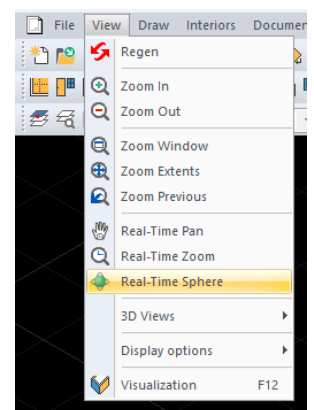


Illustration 4 Spherical rotation

2.1. Click to select

The first method is to select by clicking on an element. To do this, click once with the left mouse button on the edge of the object to be selected. The object is displayed as a dotted line. To select more objects, click on them one after the other.

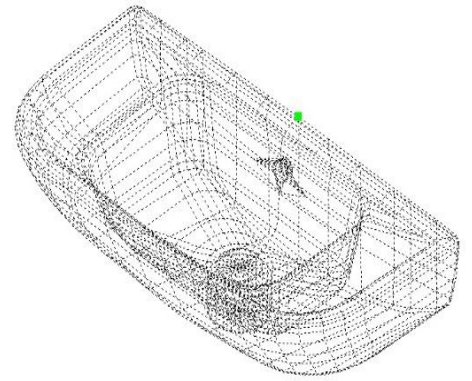


Illustration 5 Selected object

2.2. Area selecting

The second way is **Area selecting** - drawing a rectangle area which includes required objects. Left-click in the rectangle first corner, release the mouse button, move the cursor along the rectangle diagonal to the place where the next corner is to be, and left-click again. Objects that happen to be inside such a rectangle will be selected.

Area selecting has **2 variants** – from the left to the right and from the right to the left. Depending on which side the drawing of the rectangle selection area will be started, you can regulate which objects will be selected.

Variant 1: When selecting from right to left, all objects that are even partially within the rectangular selection area (i.e. crossed by its edge) are selected (Illustration 6).

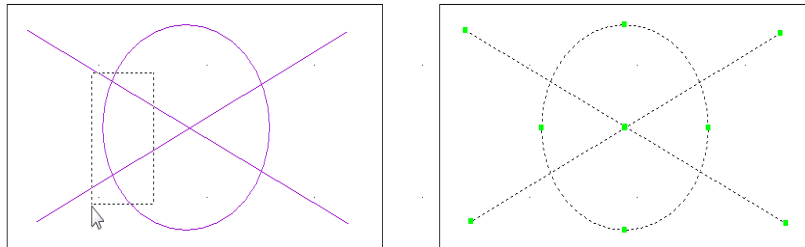


Illustration 6 Right-to-left selection and its effect

Variant 2: When drawing the selection area from left to right, only those objects are selected that are entirely within the selection area (crossing them with the area line is not sufficient). This is therefore a more selective selection method than the previous one (Illustration 7).

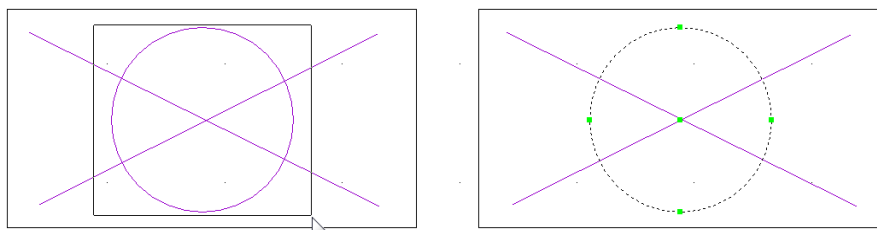


Illustration 7 The "left-to-right" selection method and its effect

3. Changing the background colour

In the .4CAD environment there are two colours of the drawing background available– black and white. It only depends of Users preferences which one is used during the designing. To do this, go to the "View" tab in the main menu and select "Display options". A sub-menu will appear with functions for changing the background colour: "White Background" and „Black Background“(Illustration 8). Other display options are also available.

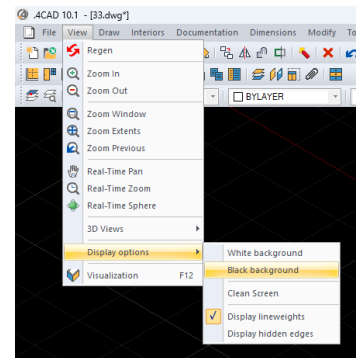


Illustration 8 View Options

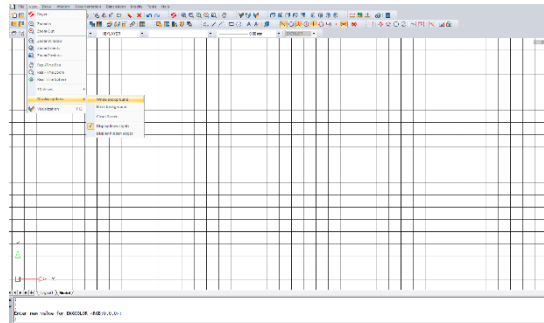


Illustration 9 Environment after adding walls and changing the background colour to white

4. Using entity snaps

When designing a room, it is extremely important to be very precise when drawing, as any inaccuracy can cause serious problems when the design is implemented. In order to achieve maximum precision when drawing, the menus of the programmes are equipped with a series of icons for indicating the characteristic points of objects, also known as location modes or attractor points. The appearance of the toolbar for working with attractor points is shown in the figure below (Illustration 10)



Illustration 10 Entity Snaps Toolbar

Using feature points ensures accurate drawing even if the user does not place the mouse cursor exactly in the right place. When enabled, feature points ensure that the cursor is automatically drawn to the currently active cursor point.

To enable an entity snap, left-click on the icon with its symbol. Click the left mouse button again to deactivate it. The active snap is displayed on the drawing, e.g. when a drawing tool is selected from the **Drawing** toolbar (e.g. path, line or arc - [see later for a detailed discussion of these functions](#)) and when an object is pointed to (i.e. when the cursor is pointed to any object in the project, e.g. a wall or piece of furniture).

The active snap is shown as a red marker with the shape assigned to the point type. If the attractor symbol is visible, the line to be drawn will be drawn to it, even if the mouse pointer is in a different position from the target point at the time of the click.

More than one snap can be included at the same time. However, it is important to note that they can sometimes be mutually exclusive.

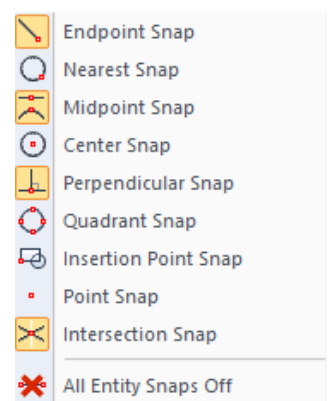


Illustration 11 Context menu for entity snaps

When drawing (i.e. after selecting a drawing tool, e.g. path (polyline), line, arc), you can temporarily activate the snaps using the shortcut **[Ctrl+right mouse button]** or **[Shift+right mouse button]**, which opens the context menu (Illustration 11). From this menu you can select the required point by clicking on it with the left mouse button. The snap is active until it is clicked in the project. Once clicked, it is deactivated (it is only activated for a single action). You can access the menu again and select the snaps you need.

4.1. Entity snaps – overview

In the table below, we show the functions of the icons available on the „Entity snaps” toolbar in CAD Decor PRO, CAD Decor and CAD Kitchens.

Snap point types:	Description
 End point	indicates the closest end point of the object, e.g. the end point of the edge of a cabin, (displays in the project as a red square)
 Nearest	points to any point on the object (displayed in the project as a red hourglass)
 Midpoint	locates the centre of an object, e.g. a segment (displayed as a red triangle)
 Central point	indicates the centre of an arc or circle (displayed as a red circle)
 Perpendicular	determines perpendicularity to an object (red right-angle symbol)
 Quadrant	determines points on a circle or arc in rectangular mode (red rhombus)
 Insertion point	visualizes the insertion point of a solid, e.g. a piece of furniture (red rhombus with two truncated corners)
 Point	drags the cursor to any points drawn before (red X on the circle)
 Intersection point	indicates the point in which objects cross one another (red X)
 None (Inactive attraction)	switches all active snap points OFF

5. Dimensioning elements

Dimensions of different objects can be created using the icons provided on the Dimensioning toolbar (Illustration 12).



Illustration 12 Dimensioning icon bar

Dimensioning is being performed in 2D system (X & Y axes) by default. It is necessary to use the snap points during dimensioning (Illustration 13).

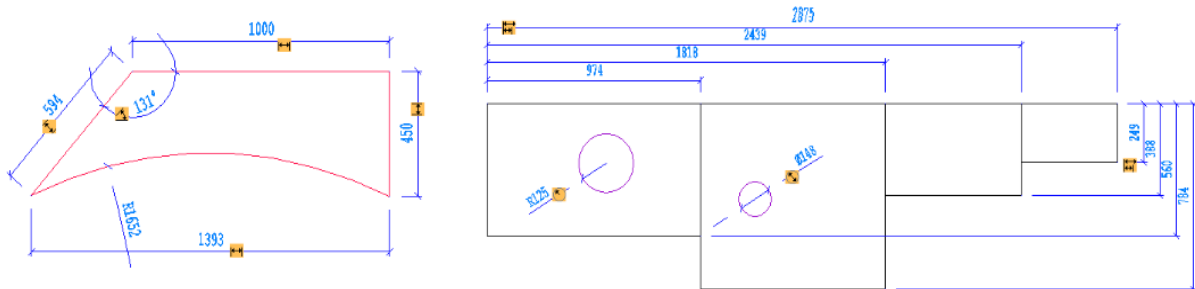


Illustration 13 Examples of object dimensioning

5.1. Dimensioning icons

In the following table we give a detailed description of the functions of the icons of the "Dimension" bar.


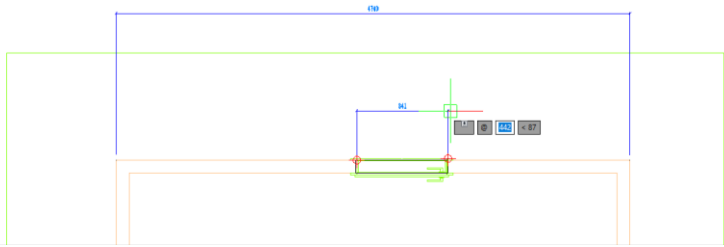

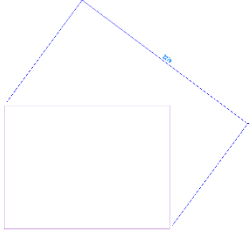

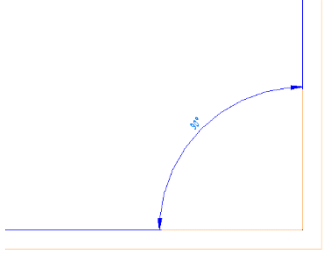









Dimension	Description
 <p>Linear</p>	<ul style="list-style-type: none"> - is used to enter the dimensions of an object along the X or Y axis (Illustration 14); - it is called by clicking on the icon in the toolbar and then on the start and end points of the object to be dimensioned; - the position of the dimension lines is set by moving the mouse up and down and confirming with the left mouse button. 

Illustration 14 Linear dimension in the drawing

 <p>Aligned</p>	<ul style="list-style-type: none"> - is used for diagonal dimensioning (Illustration 15); - can be used for dimensioning in the X and Y axes; - is obtained by following the same procedure as for linear dimensioning. 	 <p><i>Illustration 15 Free dimension used to measure the diagonal of a rectangle</i></p>
 <p>Angular</p>	<ul style="list-style-type: none"> - is used to enter angle measurements (Illustration 16); - to enter it, click on the icon, press ENTER and specify the vertex of the angle and then its arms. 	 <p><i>Illustration 16 Dimension of the wall angle in the drawing</i></p>
 <p>Diameter</p>	<ul style="list-style-type: none"> - defines the diameter of circles and arcs; - it is applied by two clicks - the first, on the edge of the object (to load the dimension of the circle or arc) and the second, which sets the position of the dimension. 	
 <p>Radius</p>	<ul style="list-style-type: none"> - defines radii of circles and arcs; - works in the same way as diameter snap. 	
 <p>Baseline</p> 	<ul style="list-style-type: none"> - allows multiple dimensions to be plotted starting from a single point; - is based on an existing dimension; - after selecting the icon, simply click on the point you wish to use as the end point of the new dimension line, and the software will automatically take the start point of the last dimension; - subsequent dimensions are added by clicking at successive endpoints, all of which have a common origin; - it is also possible to use a dimension other than the last applied one as a base by pressing [Enter] after selecting the icon, indicating the selected dimension with a click and clicking at the subsequent endpoints; - command appears on the command bar: "Baseline: ENTER to select start dimension [Select/Undo]", selecting the Dimension option or typing the letter S followed by [Enter] to select the start line dimension or the Undo option (letter U + [Enter]) to undo the creation of the last line; - to end the operation, select the [Esc] or [Enter] key or right click. 	
 <p>Continue</p> 	<ul style="list-style-type: none"> - enters dimensions in one line "from - to"; - useful for measuring kitchen cupboards, for example; - requires a horizontal, vertical, inclined or angular dimension to be entered, depending on the direction in which the row needs to be laid; - the procedure is analogous to applying a dimension from the baseline: after selecting the icon, click at the point where you want the second segment of the row to end - the program will automatically add it to the last dimension entered; - to specify a dimension other than the last added dimension as the base, select [Enter] after clicking the icon and click the desired dimension, then click the end points of the subsequent segments; - to end, select [Esc], [Enter] or the right mouse button. 	

 <p>Edit Dimension Text</p>	<ul style="list-style-type: none"> - allows you to quickly change the text of selected dimension lines; - this function allows you to replace the standard text (number of millimetres) with a description of your choice; - to use this function, select it from the top bar, then enter the text to be displayed, confirm with [Enter] and then select the text to be replaced.
 <p>Dimension Style Manager</p>	<ul style="list-style-type: none"> - allows you to modify the appearance of the dimension, e.g. type of endings and format of dimension lines, font type and size, tolerances, units used, etc.; - to change the settings of the current style, select Modify or New (Illustration 17); - the Set Current option allows you to choose which version is used when dimensioning; - changes to the style settings are only saved for a current project. <div data-bbox="954 383 1374 712" data-label="Image"> </div> <p style="text-align: center;"><i>Illustration 17 Dimensioning settings</i></p>
 <p>Apply Style</p>	<ul style="list-style-type: none"> - allows a new style to be applied to selected dimension lines; - allows you to apply a new style to selected dimension lines previously applied to the project after changing their appearance using the Dimensioning Settings icon.

6. Drawing features

The 'Draw' toolbar contains functions to facilitate drawing in the project (Illustration 18). The drawing functions can also be selected from the top menu. The drawing functions are described below. Feature points are useful when drawing. When drawing, the program displays the size of the shape to be drawn.

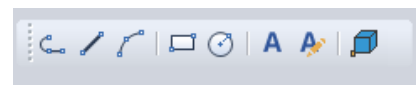


Illustration 18 Draw toolbar

When drawing, it is worth paying attention to the Command Bar. There you will find options that can make it easier to create the shape you want.

Drawn shapes can be transformed into freeform elements.

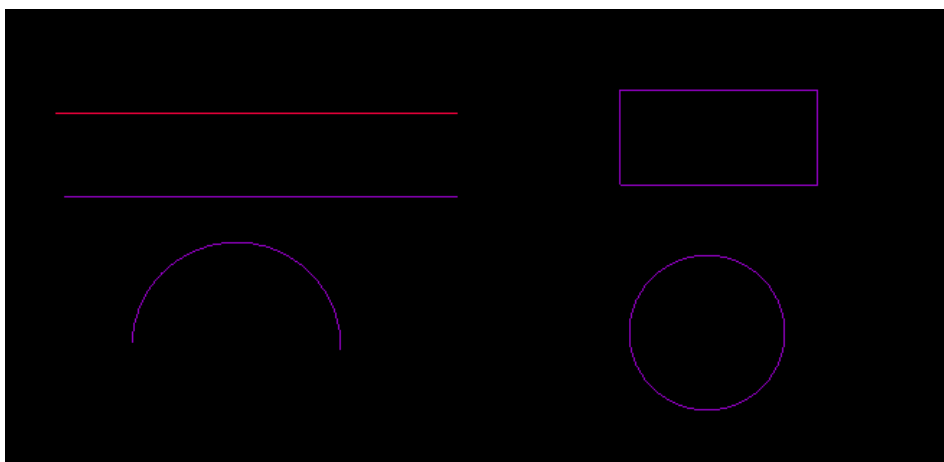




Illustration 19 Representation of the drawing function options (From left polyline, line, arc, square, circle)


6.1. Polyline

Drawing with polylines. The path is displayed in red in the project. To use this option, select the „**Polyline**” icon , then left click on the start point, move the cursor in the desired direction - you can enter the length using the keyboard or drag it to a specific length - confirm the value with the left mouse button or **[Enter]** key, then right click to end the drawing. The drawing can also be ended by pressing **[Esc]**.

When drawing a polyline, its parameters can be defined: the lengths of the individual segments and the angle at which they are to be drawn.


Once the drawing is complete, each line can be edited. To do this, left-click on the line. You can then change its length and position. Another method of initiating an edit is to select the „**Edit Polyline**” icon  from the [Palette toolbar](#) (see page 19 of this manual for more information). The available editing options will appear on the command bar.

6.2. Line


Line drawing. It is displayed in purple in the project. To start drawing, select the „**Line**” icon  and left click to define the start of the line. Each subsequent segment is validated in the same way. The right mouse button ends the drawing. You can also end the drawing by pressing the **[Esc]** key. Once you have finished drawing, you can modify the line you have drawn, including making it an arc.

A line and a polyline have different properties. They cannot be used interchangeably.

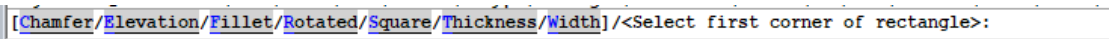
6.3. Arc

A tool for drawing an arc. To create an arc, select the „**Arc**” icon , then use the left mouse button to indicate the start of the arc, hold down the **[Shift]** key and indicate the second and end points. The function also works without the **Shift** key selected. The arc function can also be used to draw a circle. It is possible to convert a line into an arc.

6.4. Rectangle

It is used to draw a rectangle. To use this function, select the '**Rectangle**' icon . After selecting this option, the first and next corners of the rectangle must be defined. As you draw, the dimensions of the shape you are drawing are displayed.

To create a rectangle with a specific dimension, select the Rectangle icon and enter the first dimension, then select the TAB key and enter the second dimension. Other options for drawing a rectangle are displayed on the toolbar (Illustration 20).



```
[Chamfer/Elevation/Fillet/Rotated/Square/Thickness/Width]/<Select first corner of rectangle>:
```

Illustration 20 Rectangle drawing options visible on the Command Bar

To draw a square, select the **Rectangle** icon, then type the letter **S** or select the Square option on the command bar. Then select the first and next corners (Illustration 21). The length of the side of the square can be entered manually or by moving the mouse.

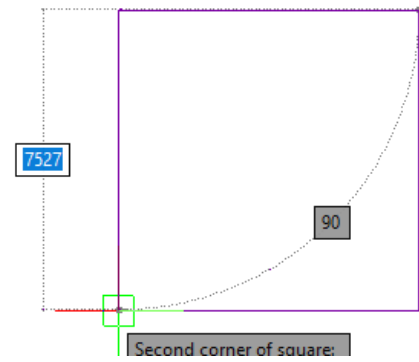


Illustration 21 Drawing a square

When you draw a shape, you can change it immediately. Once you have finished drawing, you can edit the resulting shape, including changing one of the sides to an arc. To do this, select the shape and hover the mouse over the middle of the side you want to change. A drop down menu will then appear from which you can select the 'Convert to arc' option (Illustration 22 and 23). The curve of the arc can be defined by entering a specific value on the keyboard and pressing Enter, or by moving the mouse. This is a useful function, for example, when drawing a curved bathtub surround.,

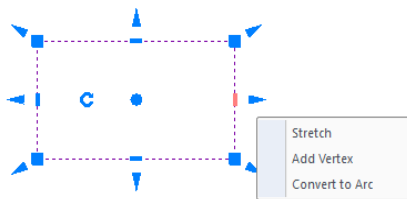


Illustration 22 Changing the side of a rectangle into

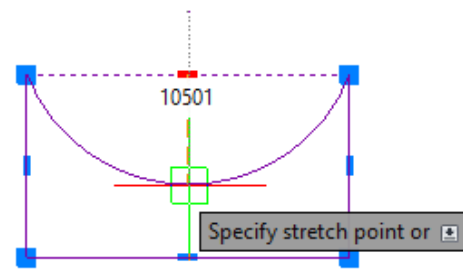



Illustration 23 Shape with arc

The rectangle shape can also be drawn using Lines or Polyline.

6.5. Circle

This is a tool that will help you to draw a circle. After selecting the "Circle" icon , specify the centre of the circle and then the radius length of the circle (Illustration 24). The selection is confirmed with the left mouse button. The radius of the circle can be entered or defined by moving the mouse.

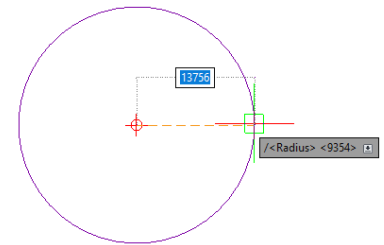


Illustration 24 Drawing a circle

The circle tool can be used to transform an arc into a circle. To do this, select the Circle icon and then the letter A and press Enter, the program will ask you to specify the arc to be transformed. Once you have finished drawing, you can edit the resulting shape.

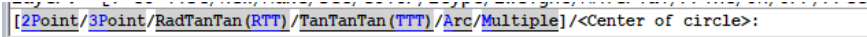



Illustration 25 Options for drawing a circle shown on the Command Bar

6.6. Insertion and edition of text

The ability to insert and edit text is useful when annotating contractors in a project and when creating decorative freeform elements using the **3D Text** option available under the **Free-formed Elements** icon in the toolbar. (For more information on inserting text as a 3D object, see the instructions on creating and using freeform elements).

To insert text into the design, click the **Text** icon  on the 'Draw' toolbar (Illustration 26) and then use the cursor to indicate the area where the text is to be inserted (by pointing to two points).

The text editor window will open.

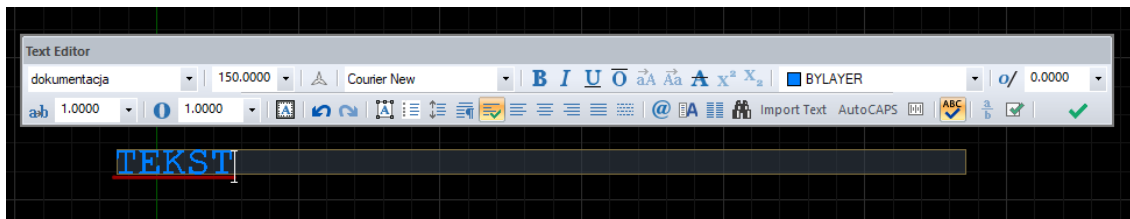


Illustration 26 Text editor

In the first line you can select in turn: text style, text height, font, text effects (e.g. italic or bold), colour and text angle. The second line contains the options: Tracking, Width Factor, Background Mask, Undo/Redo Options, List Options, Area Text Placement Options, Symbol, Insert Field, Columns, Search and Replace. The final green tick confirms the changes made.

In order to edit existing text, it is necessary to: select the text to be edited by clicking on it with the left mouse button; click on the "Edit text" icon; the editing window will reopen.

To change the size of text (including individual letters independently): when entering or editing text, select the section of text to be resized; then enter the new size in the second field from the left and press [Enter].

6.7. Insert block from file

This option allows you to insert blocks from files available on your computer. Select the **Insert blocks from file** option.

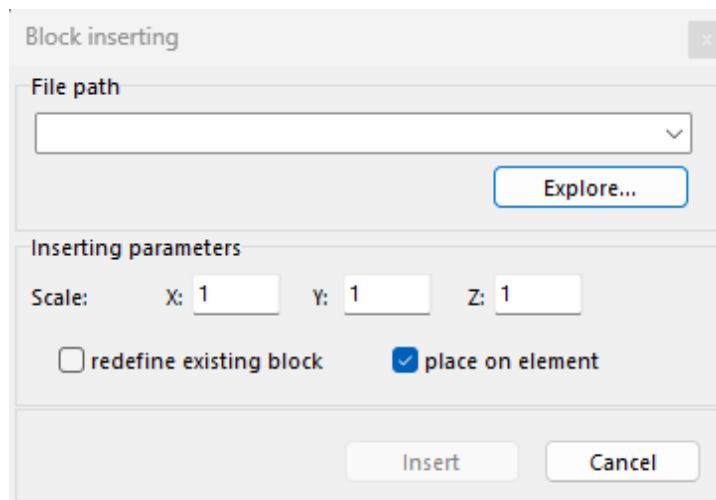


Illustration 27 Block insertion window

To insert a block, select the 'Explore...' button, select the correct file from its location (the file should be saved in .dwg format) and insert it into the project (Illustration 27).

Advanced operations on elements

Additional options for element operations can be found in the Palette Tools panel (Illustration 28).

This panel is hidden by default - to bring it up, right click in the grey box next to the toolbars and select 'Palette Tools' from the drop down list.

Some of the functions that can be found on the panel in the Modify tab are described below.

The functions available in the Palette Tools panel are also described in the instructions for working with elements.

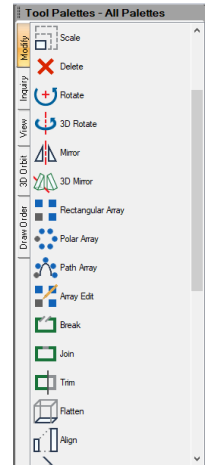


Illustration 28 Palette Tools

7. Array

This function makes it quick and easy to create symmetrical arrangements of identical objects in 2D space. The output object is copied and inserted into the specified array in the project. There are three options for creating an array in the Palette Tools panel: Rectangular Array, Polar Array and Path Array (Illustration 29).

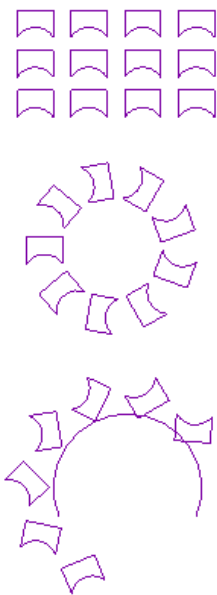


Illustration 29 Arrays (from top):
Rectangular array, polarr array
and path array

Rectangular Array

To create a rectangular array, select the Rectangular Array option from the Palette Tools panel, then select the objects that are to be part of the array and confirm the selection with **[Enter]**. The array is created. More than one object can be selected.

In rectangular array mode, the number of copies in the array is defined by specifying the number of columns and rows in the array. The distance between the columns and rows is also specified by the user.

Polar Array

To create a circular array, select the Circular Array option from the Palette Tools panel, then select the object you want to be part of the array and press **[Enter]**. The centre of the array must then be defined. Once selected, the array is created.

Path Array

To create this array, select the Path Array option from the Palette Tools panel, then select the objects you want to be part of the array and confirm your selection with **[Enter]**. You can select more than one object. Then specify the path along which the array will be created.

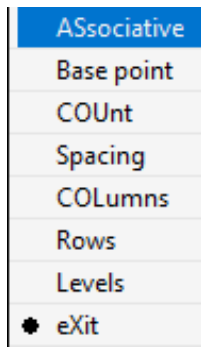


Illustration 30 Rectangular array options

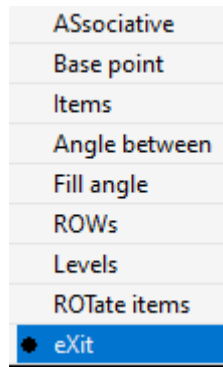


Illustration 31 Polar array options

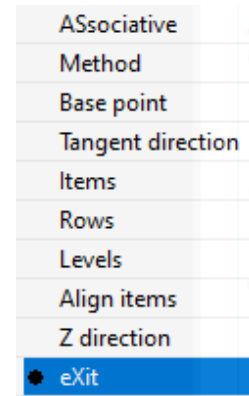


Illustration 32 Array along path options

8. 3D Array

This function allows you to create arrays in 3D space. It is useful, for example, when drawing glass block walls.

To create a 3D array, you need to:

- type the 3DArray command in the command bar;
- click to select an element and press **[Enter]** to confirm your selection;
- select whether the array should be rectangular or polar in the command bar;

In a rectangular array, you should: specify the number of rows, columns, number of levels, horizontal distance between rows, horizontal distance between columns and depth between levels.

To select a polar array from the options, or type **P** and confirm with **Enter**, then: specify the angle between the elements, specify whether the objects in the array should rotate, specify the centre point of the array, and specify a second point along the centre axis of the array.

9. Fillet / Chamfer

The Fillet and Chamfer functions are available on the Palette Tool Panel. They make it easier to edit the edges of objects (Illustration 33).

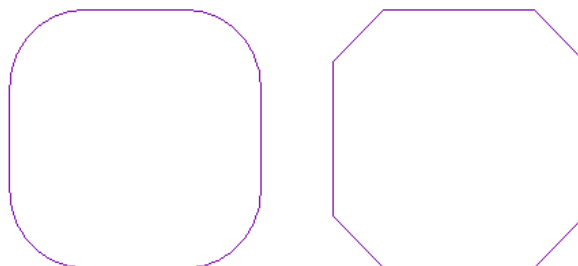



Illustration 33 View of the object using the Fillet effect (left) and chamfering

The **Fillet** option is available on the Tools palette. It allows you to connect two elements with an arc of a given radius or to round an existing sharp corner between lines. It can be used to create rounded corners between line segments, straight polyline segments and straight lines. Additional functions appear on the toolbar.

To round the corners, select the icon  from the Palette Tools panel. The radius of the fillet must then be specified. You can either type **R** and press **[Enter]**, or select the Radius option on the toolbar and enter the appropriate value.

Fillet: **[Polyline/Radius/Trim/Settings/Multiple]/<Select first entity>:**

Illustration 34 Command bar for the Fillet function

To round a shape made of lines, select two sides of the shape. The angle between the 2 lines is rounded.

To round a shape built from polylines, select Round, then select Polyline from the command bar or type the letter **P** and confirm **[Enter]**. The shape created from the polyline should be specified. In this case all sides are rounded.

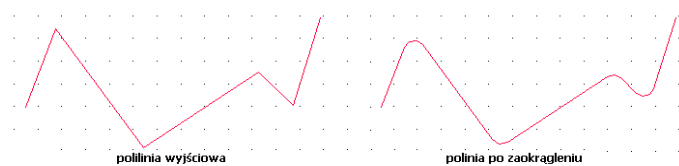


Illustration 35 Example of the use of the "Fillet" function for polylines

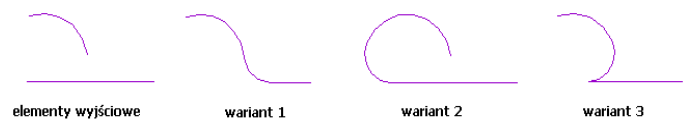


Illustration 36 Examples of the use of the "Fillet" option for lines and arcs

Chamfering is done in the same way as rounding. Select the Chamfer: icon from the Palette Tools panel. Before using the function, the distance must be defined. This can be done by selecting Distance from the toolbar or by typing the letter **D** and pressing **[Enter]**.

In the settings, the rounding radius and the chamfer distance and angles can be changed. To call up the Drawing Settings option, select the Rounding or Chamfer icon and then select the **S** key and confirm **[Enter]** (Illustration 37).

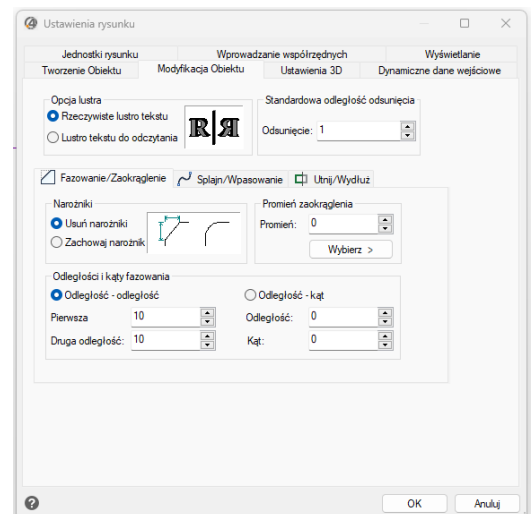


Illustration 37 Illustration settings - Chamfer and rounding options

Chamfer: **[Polyline/Distance/Angle/Method/Trim/Settings/Multiple]/<Select first entity>:**

Illustration 38 Command bar for the Chamfer function

10.Align

This function allows elements to be positioned relative to each other in the selected spatial arrangement, e.g. to be added to each other at a specific angle (Illustration 39). It is useful when placing several 3D elements in space at different angles to each other and to the coordinate axis.'

The alignment procedure is as follows:

- after selecting the " **Align**" icon from the Palette Tools panel, select the object(s) to be aligned (with a left click or with an area);
- confirm your selection with **[Enter]** or the right mouse button
- point to the first source point (e.g. the end point in the corner of the object to be moved) by left-clicking;
- indicate the first target point (the place where the source point is to be found after alignment);
- two more pairs of points can be indicated by clicking in turn on the selected points of the object to be moved and the object on which the addition is based;
- after pointing at pairs of points (one or two), press **[Enter]** or the right mouse button to finish - the object will be aligned;
- to specify whether the object should be scaled.

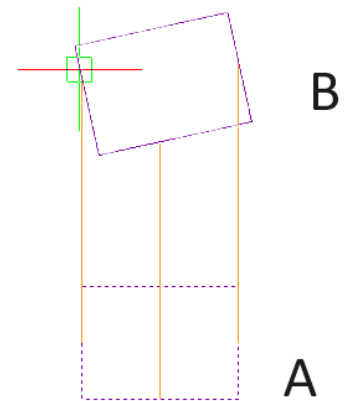



Illustration 39 Operation of the match function. A. Rectangle in starting position, orange lines mark the offset lines B. Rectangle after offset

11.Edit Length

When you select the 'Edit Length' icon  on the Palette **Tools panel**, which is used to quickly modify the length of a drawn section, the command bar prompts you to select how to make the changes (Illustration 40).

Edit length: [Dynamic/Increment/Percent/Total]/**<Select entity to list length>**:

Illustration 40 Choosing how to change the length

You can change the length of the section using the options listed:

- "**Dynamic (DY)**" - by clicking with the left mouse button on the point where the line is to be drawn;
- "**Increment' (I)**" - requires the input of the length of the section being added;
- "**Percentage" (P)**: - enter what percentage of the existing section you want the new section to be e.g. 50% will shorten the existing section by half and 150% will lengthen it by half;
- "**Total" (T)**" - enter the new total length of the section.

To select an option, type its name in the bar after the colon and press **[Enter]**. Another entry will appear in the bar, where you must enter the appropriate value, confirm with **[Enter]** and select (with a single left click) the element whose length you wish to change. In the case of the dynamic change option, you do not need to enter anything, but simply click on the segment and then, with a second click, define its new end point. This option is particularly useful when correcting lines drawn at an angle other than a multiple of 90.

Additional information

1. Instructional videos

- Changing a drawn shape into a polyline
- Rounding and chamfering corners
- Snap Points
- Drawing a rectangle
- Trimming drawn elements
- Creating an array in a 2D environment
- 3D letters

2. Shortcuts and commands

The document compares keyboard shortcuts in the .4CAD and visualization environments and lists the most frequently used commands in versions up to 3.Xi/7.X and version 4.X/8.X (both 34 and 64 bit versions of the environment). Find the document at: <https://www.cadprojekt.com.pl/zasoby/pdf/opisy-techniczne/shortcuts-4-0-8-0-eng.pdf>

This document provides an overview of keyboard shortcuts and commonly used commands in the .4CAD environment for visualization. The shortcuts and commands can be issued using either the mouse or keyboard. It can be accessed at: <https://www.cadprojekt.com.pl/zasoby/pdf/opisy-techniczne/shortcuts-4-0-8-0-64bit-eng.pdf>

In the above list, LPM and RMB stand for left and right mouse buttons, respectively. A command notation with a + sign (e.g. [Ctrl] + [Z]) indicates that both keys should be pressed simultaneously, while a notation with a >> symbol (e.g. [E] >> [Enter] or [Space]) means that you should first type E and then press [Enter] or the space bar.

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We would like to inform you that we provide training in the use of our programs. For more information, please visit our website: <https://www.en.cadprojekt.com.pl/trainings/>

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